

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018679**Date Inspected:** 12-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 11**

This QA Inspector randomly observed the following work in progress in Bay 11:

SMAW welding of weld joint BK004A2-020-019 located on PCMK OBG BK004-020, plugs welds at bottom plate to longitudinal stiffener flange. Welder was identified as 066155. QC was identified as ZPMC CWI Fu Guo Gong (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Bin (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-2132-Plug as verbally identified by QCA1.

SMAW welding of weld joint ND1-BRSA5-2-4B located on PCMK Tower, lift5. Welder was identified as 040724. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4b as verbally identified by QCA1.

**Bay 10**

This QA Inspector randomly observed the following work in progress in Bay 10:

FCAW welding of weld joint BK004A6-028-165 located on PCMK OBG BK004-028, end plate BKPL8A to bent side plate. Welder was identified as 040302. QC was identified as QC1. Assisting QC1 at this location and

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appearing to be monitoring the welding and recording data was ZPMC QC Deng Zhi Bing (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2333-TC-P4-F as verbally identified by QCA2.

### OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

SMAW repair welding of weld joint SEG068A-045 located outside PCMK OBG 11BE, side plate to bottom plate, approximately 100mm~200mm west of the 11BE/11CE transverse joint, north (crossbeam) side. Welder was identified as 040320. QC was identified as ZPMC CWI Liu Hua Jie (QC2). Welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-4G(4F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR16874 presented to this QA Inspector and verbally identified by QCA2.

FCAW repair welding of weld joint SEG068A-045 located inside PCMK OBG 11BE, side plate to bottom plate, approximately 2200mm~2650mm west of the 11BE/11CE transverse joint, north (crossbeam) side. Welder was identified as 047353. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-2G(2F)-ESAB-repair-1 as displayed on ZPMC Weld Repair Report B-WR16875 presented to this QA Inspector and verbally identified by QCA2.

### Heavy Dock

This QA Inspector randomly observed the following on the Heavy Dock:

All 4 towers, lift 4 were positioned on a base pedestal at end of the Heavy Dock. All four towers, lift 5 were positioned on top of the respective lift 4. The ZPMC 1600 ton floating crane was moored near the head of the Heavy Dock and sitting idle.

OBG segment 10E was positioned on the deck of the ship moored to the end of the Heavy Dock. OBG segment 10W was positioned on top of OBG segment 10E. All four towers, lift 3 were positioned horizontally on the deck of the ship. OBG CB 13 and CB14 were positioned on the deck of the ship. No work was being performed on any of the tower or OBG components on the ship.

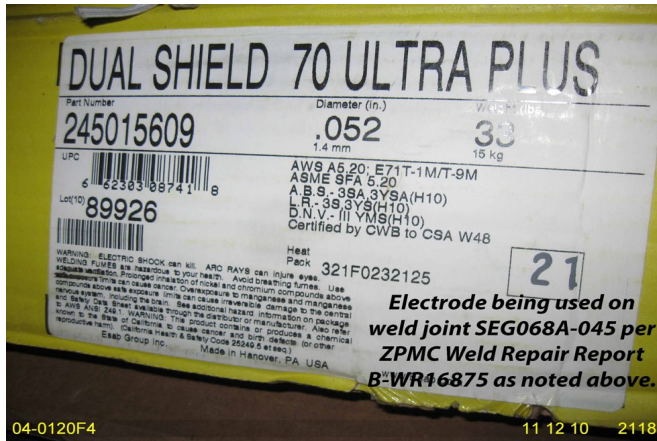
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet,George

Quality Assurance Inspector

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**Reviewed By:** Carreon,Albert

QA Reviewer